

IN THE CLAIMS

Please amend Claims 1 and 2 as follows:

1. (Currently Amended) A device for determining an optimized decision threshold for a high speed, high rate data regenerator, comprising:

a first comparator and a first retiming circuit for comparing a recovered data signal with a preset threshold and providing a pseudo-data signal representative of said recovered data signal;

a second comparator and a second retiming circuit for comparing said recovered data signal with said optimized decision threshold and providing a regenerated data signal; and

a low pass filter for separating a DC component from said ~~first~~ pseudo-data signal and using said DC component to provide said optimized decision threshold.

2. (Currently Amended) A device ~~as claimed in claim 1~~ for determining an optimized decision threshold for a high speed, high rate data regenerator, comprising:

a first comparator and a first retiming circuit for comparing a recovered data signal with a preset threshold and providing a pseudo-data signal representative of said recovered data signal;

a second comparator and a second retiming circuit for comparing said recovered data signal with said optimized decision threshold and providing a regenerated data signal; and,

a low pass filter for separating a DC component from said pseudo-data signal and using said DC component to provide said optimized decision threshold,

wherein said preset threshold varies linearly from a high value to a low value to provide said DC component as a representative of the eye of said pseudo-data signal.

3. (Original) A device as claimed in claim 2, further comprising means for storing said DC component.

4. (Original) A method for determining an optimized decision threshold for a high speed, high rate data regenerator, comprising:

comparing and retiming a recovered data signal with a preset threshold, for providing a pseudo-data signal representative of said recovered data signal;

comparing and retiming said recovered data signal with said optimized decision threshold for providing a regenerated data signal;

filtering said pseudo-data signal for separating a DC component;
and,

monitoring said DC component to provide said optimized decision threshold.

5. (New) A method for determining an optimized decision threshold for a high speed, high rate data regenerator, comprising:

comparing and retiming a recovered data signal with a preset threshold, for providing a pseudo-data signal representative of said recovered data signal;

comparing and retiming said recovered data signal with said optimized decision threshold for providing a regenerated data signal;

filtering said pseudo-data signal for separating a DC component;

monitoring said DC component to provide said optimized decision threshold; and,
varying said preset threshold linearly from a high value to a low value to provide said DC component as a representative of the eye of said pseudo-data signal component.

6. (New) A method as claimed in claim 5, further comprising storing said DC component.